236 Although mutton is eaten to some extent, sheep are raised primarily for wool. Sheep [262] are sheared twice a year, in late fall and early summer. A sheep yields about 1 pound of wool [435] in two shearings, which sells at from $1.00 to $1.25 (all monetary values are in Mexican currency). Black wool brings more than white (as it is all used locally for serape weaving).

233 *Goats.*—Only a few goats are raised. Normally they are herded with the sheep and are [234] treated like them. In rare instances the goats are milked, and the milk is made into cheese. [438] The most important use of goats is to sell them for food, usually outside the town, as goat meat [262] is rarely eaten in Cherán. Goatskins are sold uncured with the hair.

231 *Horses.*—Although some horses are bred in Cherán and some care is exercised in breeding, it is said the animals deteriorate because of the cold climate. Consequently, most horses are imported, but they also deteriorate rapidly. More important than the cold, undoubtedly, is the fact that no one in Cherán understands the care of horses. They are badly fed and receive little protection from the weather. Stallions are castrated.

In any case, horses are rare in Cherán and [492] are little used except as riding animals, especially by those with numerous cattle or pack animals. Riding and pack gear are the same [184] as those of the Mestizos. Although in other [241] Tarascan towns horses are used in plowing, this was denied in Cherán. A rather poor [435] horse costs about 70 pesos. Most horses be- [556] long to well-to-do men and primarily are indicators of social position. Attitudes toward owning a horse are a weak reflection of those of the vanishing Mexican *caballero*. Women almost never ride.

Horses are fed maize, oats, maize stalks, and [232] wheat or oat straw. Few people have any knowledge of treating illnesses of horses. [422] Ownership is indicated by branding, and horses [552] are given names similar to those used by [262] Mestizos. Horse meat is not eaten, but horse [281] hides are valued for tanning.

Mules.—Mules are even rarer than horses and have a higher value. Almost all are im- [492] ported. They are used mostly as pack animals, but occasionally they are ridden or used with the plow.

231 434 [435] pig takes from 1 to 2½ *fanegas* of maize to fatten, valued at from $5 to $7. According to size, the animal may bring from $30 to $75, a gross profit on the fattening process of from $12.50 to $70.00. This would be 5 to 7 pesos less if the pig was bought. If an adequate market were developed, or if sales and transport facilities at a distance were to be developed, pig raising might be a more important activity, although an increase in the number of pigs would decrease the amount of foraging possible and would require more feeding.

● 236 434 Sheep raising is engaged in by only a few. The reliability of the major informants is suspect, but the evidence suggests that sheep raising is profitable. The major expense is the initial cost of the flock and the wages of a shepherd. Sheep are worth $2.50 to $5.00 [435] apiece. Shepherds' wages vary with the size of the flock, but probably rarely exceed $20 a [465] month plus a *fanega* of maize and one sheep for food; most shepherds receive considerably less, often only $5 a month without food. Often several small owners merge their flocks and hire a single shepherd.

Income from sheep is mainly from wool and payments to have the flocks bedded on farm land. Sheep average a pound of wool a year (this seems low but the sheep are of poor [435] quality), which sells for $1 to $1.25. A fair-size flock of sheep would bring 50 centavos a night for fertilizer. A few sheep are sold for [262] meat outside the village; almost no lamb or mutton is eaten in Cherán. No data were secured on prices. Mortality on sheep is high, but again no usable data were obtainable.

A flock of 200 sheep studied represents an investment of $750 in theory although it probably was built up by natural increase from a smaller flock. The shepherd receives $20 a month, 1 *fanega* of maize worth at least $5, and a sheep worth, on an average, $3.75, or a total of $28.75 a month ($345 a year). Wool would produce $200 to $250 a year. Bedding on farm lands would produce probably 50 centavos a night for this flock for 110 days (estimated) or $55. Total income from these sources would be $255 to $305 a year. The natural increase may safely be assumed to be 75 head. Sold at $2.50 apiece, they would bring in $187.50 a

236 434 year, or a total of $442.50 to $492.50 a year. Deducting expenses of $345 leaves a return on the investment of $107.50 to $147.50. As indicated before, these figures are suspect. [124] The owner of this flock is not believed to be very truthful on financial matters. For example, he claimed to own 20 sheep; Augustín Rangel said he had over 200. He is, though, a hard-headed storekeeper and farmer who would not keep sheep if they were not profitable. The most suspect item in the calculations is the amount of wool per sheep.

231 434 The evaluation of the role of the burro is as difficult as in the case of oxen. Burros reduce the cost of numerous operations by saving the rental of animals, they facilitate such tasks as bringing in wood (which otherwise would be carried in by the woodcutter rather than on rented animals), and they may be rented. Burros involve little investment—$30 to $40—but they do require attention while in pasture and the provision of feed when kept at home. Although burros not in use are often lent, they [427] sometimes are rented. Information on rentals is contradictory; at the harvest season, when demand is highest, rentals are probably about 50 centavos a day plus feed for the animals.

313 434 The ensuing topics are dealt with in summary form to bring out the essential factors of capital, labor costs, cost of materials, and income.

433

WOODWORKING

Shake making:

Tools:

Ax, wedges, machete, splitting tool

Product:

[435] ½ irepita (an irepita, or bundle, is 400) a day at..... $5.00

Profits (return on labor, less interest on capital, etc.) $2.50

Comment: Shake making is a well-paying occupation, but profits are less than the data above suggest. Shakes are made either only to order or are sold in Uruapan or some other Mestizo center. In the latter case the man may work regularly, but must spend 1 or 2 days a week taking his product to market. Neither does the estimated result for a day's labor include the time spent searching for a suitable tree. Usually only a 5-day week or less is worked and the season is confined to the rainy period. As a result, shake makers must shift to other work, such as plank making, tie cutting, farming, etc. The term "profits" is loosely used throughout, as wages are often included.

293 During the summer months boys and girls are
[883] the full-time shepherds, driving herds up the mountain slope each morning and down to the folds near the house at evening. The elders perform the semiannual shearing and often tend the flocks in the cornfields during the winter. Professional shepherds are sometimes hired by sheep owners to care for their flocks.

The sheep of the Tarascans are small, scrawny animals, descendants of the 16th-century Spanish breeds. In a given flock about half the animals are black, the rest white (pl. 7). Often a few goats graze with the flock. The Indians are usually financially unable to improve the breed with new blood; in only one case did the writer
● 236 observe a merino ram. The Tarascans raise sheep mainly for wool. The *rancheros* around Cerro de Patamban shear their animals with hand clippers every 6 months. Some wool is obtained also by the girl shepherds, who pluck from the backs of sheep while the animals are grazing; as she plucks, the girl spins the wool on a whorl spindle, completing a ball of yarn as large as the fist at the end of day. In many villages local wool is used for weaving, many weavers possessing their own flocks. Otherwise the wool clip is sold to people from other villages or to mestizo wholesale buyers.

231 The hog was the first European animal domesti-
177 cate that the Spaniards brought into the Tarascan area in quantity, and was possibly one of the first of the new animals adopted into Indian culture. As early as 1525 Spaniards were raising large droves of hogs in the vicinity of Pátzcuaro in order to supply food to placer operations in the Balsas (Millares Carlo and Mantecón, 1945, p. 32).[110] Indians were used as swineherds. Throughout the colonial period large numbers of hogs were fed in the marsh areas north of the Sierra and droves were periodically driven to Toluca and the valley of Mexico (Paso y Troncoso, 1905, vol. 1, p. 180). Today the hog is common in
231 every Tarascan village. Practically every household owns two or three animals, which serve as scavengers, running the streets by day; enough maize and scraps are fed the animals to induce them to return at night to the proper pen in the

[110] The hog appears to have been the first Old World animal raised on a large scale in New Spain. Moreover, hog culture was intimately connected with gold placering in Oaxaca, Guerrero, and Michoacán (1531–35). Droves were driven along with the shifting placer camps, the animals feeding on fallen tropical fruits (e. g. the *ciruela*), roots, and wild tubers in the *tierra caliente*. "*Carne de puerco*" was the chief "energy" food given the Indian labor gangs.